

ABSTRACT

A sensor head has a multiplicity of linear image sensors in correspondence with different radial directions of light emitted from a pixel in a pixel line of an LCD panel. The linear image sensors extends in the direction of the axis of an imaginary semi-cylinder and have their light receiving faces disposed on the imaginary surface of the imaginary semi-cylinder. with the normals to the light receiving faces passing through the axis of the imaginary semi-cylinder.

The linear image sensors have light receiving faces that are angularly spaced apart on an imaginary semi-cylinder, with their light receiving faces having normals passing through the axis of the imaginary semi-cylinder. Interposed in the space between the LCD pixel and the linear image sensors is an optical system having a multiplicity of light paths associated with respective angular components of the radiation emitted from the pixel line. Each of the light paths receives a predetermined angular component of light and transmits the light thus received to a corresponding one of the linear image sensors. For an image sensor for sensing spherically distributed luminance, light A semi-spherical optical system can be used for the measurement of luminance in spherical distribution In the measurement of luminance distribution, the axis of the imaginary semi-cylinder is coincided with the pixel line. Unevenness analysis and unevenness inspection of the LCD are performed based on the luminance distribution data obtained. The results of the analysis and the inspection are displayed on an display.